

INTERNATIONAL SEARCH REPORT

ational Application No

/GB2004/004215

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/705 A61K31/7076

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	SANZ J M ET AL: "TENIDAP ENHANCES P2Z/P2X7 RECEPTOR SIGNALLING IN MACROPHAGES" EUROPEAN JOURNAL OF PHARMACOLOGY, AMSTERDAM, NL, vol. 355, no. 2/3, 1998, pages 235-244, XP001056968 ISSN: 0014-2999 the whole document ----- -/--	1-7, 9-11,14, 15,17,18

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

G document member of the same patent family

Date of the actual completion of the international search

23 November 2004

Date of mailing of the international search report

06/12/2004

Name and mailing address of the ISA

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>VERHOEF PHILIP A ET AL: "P2X7 receptor-dependent blebbing and the activation of Rho-effector kinases, caspases, and IL-1beta release." JOURNAL OF IMMUNOLOGY, vol. 170, no. 11, 1 June 2003 (2003-06-01), pages 5728-5738, XP002306717 ISSN: 0022-1767 page 5732, left-hand column</p>	1,2,4-7, 9-11,14, 15,17,18
X	<p>US 6 509 163 B1 (BUELL GARY NUTTER ET AL) 21 January 2003 (2003-01-21) cited in the application figure 7</p>	1,2,4-7, 9-11,14, 15,17,18
A	<p>MACKENZIE AMANDA ET AL: "Rapid secretion of interleukin-1beta by microvesicle shedding" IMMUNITY, vol. 15, no. 5, November 2001 (2001-11), pages 825-835, XP002306718 ISSN: 1074-7613 cited in the application the whole document</p>	
A	<p>RALEVIC V ET AL: "RECEPTORS FOR PURINES AND PYRIMIDINES" PHARMACOLOGICAL REVIEWS, WILLIAMS AND WILKINS INC., BALTIMORE, MD,, US, vol. 50, no. 3, 1998, pages 413-492, XP000926467 ISSN: 0031-6997</p>	1-21
A,L	<p>WANG QINGPING ET AL: "Catalytic inactivation of protein tyrosine phosphatase CD45 and protein tyrosine phosphatase 1B by polyaromatic quinones" BIOCHEMISTRY, vol. 43, no. 14, 13 April 2004 (2004-04-13), pages 4294-4303, XP002306720 ISSN: 0006-2960 the whole document</p>	8,13,16, 19

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Although claims 1-8 and 20 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.

Continuation of Box II.2

Claims Nos.: 1-21 (all partially)

Claims 1-3 and 5-21 cover all substances/the use of all substances having the desired characteristic of modulating, stimulating or activating, respectively, the P2X7 receptor. However, the application provides support (Art. 6 PCT) and disclosure (Art. 5 PCT) for only a limited number of such substances. Thus, a meaningful search over the whole of the scope claimed is impossible. Consequently, the search has been limited to the substances defined on p. 6, last par.-p. 7, l. 2 and their use (ATP, ATP analogues) (cf. Art. 17(2)(a)(ii) PCT).

Claim 4 covers all immunoglobulin or immunoglobulin-like variants which possess specific binding activity for the P2X7 receptor and having the desired characteristic of modulating or stimulating, respectively, the P2X7 receptor. However, the wording on p. 7, first full par., l. 1-3 shows that the application provides support (Art. 6 PCT) and disclosure (Art. 5 PCT) for no such immunoglobulin or immunoglobulin-like variants: "Other substances which the inventors predict might stimulate the P2X7 receptor include antibodies and antibody-like variants with specific binding affinity for the P2X7 receptor".

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 1-21 (all partially)
because they relate to subject matter not required to be searched by this Authority, namely:
Although claims 1-8 and 20 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☒ Claims Nos.: 1-21 (all partially)
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this International application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 6509163	B1	21-01-2003	US
6133434 A	17-10-2000		